

# CONTINUOUS VACUUM CARBURIZING FURNACE

## Abstract

A continuous vacuum carburizing furnace of the invention includes: a heating chamber for heating a workpiece under a atmospheric pressure; a first conditioning chamber in which the pressure is reduced from the atmospheric pressure after the receipt of the workpiece from the heating chamber; a carburizing/diffusing chamber receiving plural workpieces from the first conditioning chamber and conducting plural cycles of carburizing and diffusing processes under the reduced pressure; a second conditioning chamber in which the reduced pressure is returned to the atmospheric pressure after the receipt of the workpiece treated in the carburizing/diffusing chamber; and a cooling chamber for cooling the workpiece introduced from the second conditioning chamber under the atmospheric pressure, the furnace further comprising a door member disposed between a respective adjoining pair of the above chambers, the door member opened/closed only when the workpiece is transported from one chamber to another.